



1102-98.TXT

SEQUENCE LISTING

<110> Kainoh, Mie
Tanaka, Toshiaki

<120> Chimeric Proteins, their Heterodimer
Complexes, and Platelet Substitutes

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<140> 09/155,514

<141> 1998-11-17

<150> WO PCT/JP98/00370

<151> 1998-01-29

<150> JP 9-15118

<151> 1997-01-29

<150> JP-9-234544

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Asn	Trp	Leu	Ala	Asn	Ala	Ser	Val	Ile	Asn	Pro	Gly	Ala	Ile	Tyr	Arg	
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Cys	Arg	Ile	Gly	Lys	Asn	Pro	Gly	Gln	Thr	Cys	Glu	Gln	Leu	Gln	Leu	
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Glu	Val	Val	Gly	Gly	Ala	Pro	Gln	His	Glu	Gln	Ile	Gly	Lys	Ala	Tyr	
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agc Ser	acc Thr	atc Ile	aga Arg 340	gag Glu	gaa Glu	gga Gly	aga Arg	gtg Val 345	ttt Phe	gtg Val	tac Tyr	atc Ile	aac Asn 350	tct Ser	ggc Gly	1056
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gtc Val	atc Ile	agt Ser 595	aaa Lys	cga Arg	agt Ser	aca Thr	gag Glu 600	gaa Glu	ttc Phe	cca Pro	cca Pro	ctt Leu 605	cag Gln	cca Pro	att Ile	1824
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cat His	gct Ala	acc Thr 755	tgt Cys	gaa Glu	aat Asn	gaa Glu	gag Glu 760	gaa Glu	atg Met	gac Asp	aat Asn	cta Leu 765	aag Lys	cac His	agc Ser	2304
aga Arg 770	gtg Val	act Thr	gta Val	gca Ala	ata Ile	cct Pro 775	tta Leu	aaa Lys	tat Tyr	gag Glu	gtt Val 780	aag Lys	ctg Leu	act Thr	gtt Val	2352
cat His 785	ggg Gly	ttt Phe	gta Val	aac Asn	cca Pro 790	act Thr	tca Ser	ttt Phe	gtg Val	tat Tyr 795	gga Gly	tca Ser	aat Asn	gat Asp	gaa Glu 800	2400
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Pro His Pro Gly Met Ser * Pro Arg Thr Arg Ser Ala * Pro Ala	
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Gly Gly Ser Arg Gly Thr Ser Ser His Ala Pro * Cys Met Arg Leu	
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Lys Ser Cys Gly Glu Cys Ile Gln Ala Gly Pro Asn Cys Gly Trp Cys	
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Asp Asp Leu Glu Ala Leu Lys Lys Lys Gly Cys Pro Pro Asp Asp Ile	
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Glu Asn Pro Arg Gly Ser Lys Asp Ile Lys Lys Asn Lys Asn Val Thr	
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Asn Arg Ser Lys Gly Thr Ala Glu Lys Leu Lys Pro Glu Asp Ile His	
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Gln Ile Gln Pro Gln Gln Leu Val Leu Arg Leu Arg Ser Gly Glu Pro	
115 120 125	
cag aca ttt aca tta aaa ttc aag aga gct gaa gac tat ccc att gac	432
Gln Thr Phe Thr Leu Lys Phe Lys Arg Ala Glu Asp Tyr Pro Ile Asp	
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ctc tac tac ctt atg gac ctg tct tat tca atg aaa gac gat ttg gag	480
Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys Asp Asp Leu Glu	
145 150 155 160	
aat gta aaa agt ctt gga aca gat ctg atg aat gaa atg agg agg att	528
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gaa Glu 465	tgc Cys	caa Gln	agc Ser	gaa Glu	ggc Gly 470	atc Ile	cct Pro	gaa Glu	agt Ser	ccc Pro 475	aag Lys	tgt Cys	cat His	gaa Glu	gga Gly 480	1440
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 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
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 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
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Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	
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 Page 14

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Ala	Pro	Met 515	Tyr	Met	Ser	Asp	Leu 520	Lys	Lys	Glu	Glu	Gly 525	Arg	Val	Tyr		
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Leu	Phe 530	Thr	Ile	Lys	Lys	Gly 535	Ile	Leu	Gly	Gln	His 540	Gln	Phe	Leu	Glu		
ggc	ccc	gag	ggc	att	gaa	aac	act	cga	ttt	ggg	tca	gca	att	gca	gct	1680	
Gly	Pro	Glu	Gly	Ile	Glu 550	Asn	Thr	Arg	Phe	Gly 555	Ser	Ala	Ile	Ala	Ala 560		
ctt	tca	gac	atc	aac	atg	gat	ggc	ttt	aat	gat	gtg	att	gtt	ggg	tca	1728	
Leu	Ser	Asp	Ile	Asn 565	Met	Asp	Gly	Phe	Asn 570	Asp	Val	Ile	Val	Gly 575	Ser		

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cca	cta	gaa	aat	cag	aat	tct	gga	gct	gta	tac	att	tac	aat	ggt	cat	1776
Pro	Leu	Glu	Asn	Gln	Asn	Ser	Gly	Ala	Val	Tyr	Ile	Tyr	Asn	Gly	His	
			580					585					590			
cag	ggc	act	atc	cgc	aca	aag	tat	tcc	cag	aaa	atc	ttg	gga	tcc	gat	1824
Gln	Gly	Thr	Ile	Arg	Thr	Lys	Tyr	Ser	Gln	Lys	Ile	Leu	Gly	Ser	Asp	
		595					600					605				
gga	gcc	ttt	agg	agc	cat	ctc	cag	tac	ttt	ggg	agg	tcc	ttg	gat	ggc	1872
Gly	Ala	Phe	Arg	Ser	His	Leu	Gln	Tyr	Phe	Gly	Arg	Ser	Leu	Asp	Gly	
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tat	gga	gat	tta	aat	ggg	gat	tcc	atc	acc	gat	gtg	tct	att	ggt	gcc	1920
Tyr	Gly	Asp	Leu	Asn	Gly	Asp	Ser	Ile	Thr	Asp	Val	Ser	Ile	Gly	Ala	
625					630					635					640	
ttt	gga	caa	gtg	gtt	caa	ctc	tgg	tca	caa	agt	att	gct	gat	gta	gct	1968
Phe	Gly	Gln	Val	Val	Gln	Leu	Trp	Ser	Gln	Ser	Ile	Ala	Asp	Val	Ala	
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ata	gaa	gct	tca	ttc	aca	cca	gaa	aaa	atc	act	ttg	gtc	aac	aag	aat	2016
Ile	Glu	Ala	Ser	Phe	Thr	Pro	Glu	Lys	Ile	Thr	Leu	Val	Asn	Lys	Asn	
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Ala	Gln	Ile	Ile	Leu	Lys	Leu	Cys	Phe	Ser	Ala	Lys	Phe	Arg	Pro	Thr	
		675					680					685				
aag	caa	aac	aat	caa	gtg	gcc	att	gta	tat	aac	atc	aca	ctt	gat	gca	2112
Lys	Gln	Asn	Asn	Gln	Val	Ala	Ile	Val	Tyr	Asn	Ile	Thr	Leu	Asp	Ala	
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gat	gga	ttt	tca	tcc	aga	gta	acc	tcc	agg	ggg	tta	ttt	aaa	gaa	aac	2160
Asp	Gly	Phe	Ser	Ser	Arg	Val	Thr	Ser	Arg	Gly	Leu	Phe	Lys	Glu	Asn	
705					710					715					720	
aat	gaa	agg	tgc	ctg	cag	aag	aat	atg	gta	gta	aat	caa	gca	cag	agt	2208
Asn	Glu	Arg	Cys	Leu	Gln	Lys	Asn	Met	Val	Val	Asn	Gln	Ala	Gln	Ser	
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tgc	ccc	gag	cac	atc	att	tat	ata	cag	gag	ccc	tct	gat	gtt	gtc	aac	2256
Cys	Pro	Glu	His	Ile	Ile	Tyr	Ile	Gln	Glu	Pro	Ser	Asp	Val	Val	Asn	
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Ser	Leu	Asp	Leu	Arg	Val	Asp	Ile	Ser	Leu	Glu	Asn	Pro	Gly	Thr	Ser	
		755					760					765				
cct	gcc	ctt	gaa	gcc	tat	tct	gag	act	gcc	aag	gtc	ttc	agt	att	cct	2352
Pro	Ala	Leu	Glu	Ala	Tyr	Ser	Glu	Thr	Ala	Lys	Val	Phe	Ser	Ile	Pro	
	770					775					780					
ttc	cac	aaa	gac	tgt	ggg	gag	gat	gga	ctt	tgc	att	tct	gat	cta	gtc	2400
Phe	His	Lys	Asp	Cys	Gly	Glu	Asp	Gly	Leu	Cys	Ile	Ser	Asp	Leu	Val	
785					790					795					800	
cta	gat	gtc	cga	caa	ata	cca	gct	gct	caa	gaa	caa	ccc	ttt	att	gtc	2448
Leu	Asp	Val	Arg	Gln	Ile	Pro	Ala	Ala	Gln	Glu	Gln	Pro	Phe	Ile	Val	
				805					810					815		
agc	aac	caa	aac	aaa	agg	tta	aca	ttt	tca	gta	aca	ctg	aaa	aat	aaa	2496
Ser	Asn	Gln	Asn	Lys	Arg	Leu	Thr	Phe	Ser	Val	Thr	Leu	Lys	Asn	Lys	
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agg Arg	gaa Glu	agt Ser 835	gca Ala	tac Tyr	aac Asn	act Thr	gga Gly 840	att Ile	gtt Val	gtt Val	gat Asp	ttt Phe 845	tca Ser	gaa Glu	aac Asn	2544
ttg Leu	ttt Phe 850	ttt Phe	gca Ala	tca Ser	ttc Phe	tcc Ser 855	cta Leu	ccg Pro	gtt Val	gat Asp	ggg Gly 860	aca Thr	gaa Glu	gta Val	aca Thr	2592
tgc Cys 865	cag Gln	gtg Val	gct Ala	gca Ala	tct Ser 870	cag Gln	aag Lys	tct Ser	gtt Val	gcc Ala 875	tgc Cys	gat Asp	gta Val	ggc Gly	tac Tyr 880	2640
cct Pro	gct Ala	tta Leu	aag Lys	aga Arg 885	gaa Glu	caa Gln	cag Gln	gtg Val	act Thr 890	ttt Phe	act Thr	att Ile	aac Asn	ttt Phe 895	gac Asp	2688
ttc Phe	aat Asn	ctt Leu	caa Gln 900	aac Asn	ctt Leu	cag Gln	aat Asn 905	cag Gln	gcg Ala	tct Ser	ctc Leu	agt Ser	ttc Phe 910	caa Gln	gcc Ala	2736
tta Leu	agt Ser	gaa Glu 915	agc Ser	caa Gln	gaa Glu	gaa Glu	aac Asn 920	aag Lys	gct Ala	gat Asp	aat Asn	ttg Leu 925	gtc Val	aac Asn	ctc Leu	2784
aaa Lys	att Ile 930	cct Pro	ctc Leu	ctg Leu	tat Tyr	gat Asp 935	gct Ala	gaa Glu	att Ile	cac His	tta Leu 940	aca Thr	aga Arg	tct Ser	acc Thr	2832
aac Asn 945	ata Ile	aat Asn	ttt Phe	tat Tyr	gaa Glu 950	atc Ile	tct Ser	tcg Ser	gat Asp	ggg Gly 955	aat Asn	gtt Val	cct Pro	tca Ser	atc Ile 960	2880
gtg Val	cac His	agt Ser	ttt Phe	gaa Glu 965	gat Asp	gtt Val	ggg Gly	cca Pro	aaa Lys 970	ttc Phe	atc Ile	ttc Phe	tcc Ser	ctg Leu 975	aag Lys	2928
gta Val	aca Thr	aca Thr	gga Gly 980	agt Ser	gtt Val	cca Pro	gta Val	agc Ser 985	atg Met	gca Ala	act Thr	gta Val	atc Ile 990	atc Ile	cac His	2976
atc Ile	cct Pro	cag Gln 995	tat Tyr	acc Thr	aaa Lys	gaa Glu	aag Lys 1000	aac Asn	cca Pro	ctg Leu	atg Met	tac Tyr 1005	cta Leu	act Thr	ggg Gly	3024
gtg Val	caa Gln 1010	aca Thr	gac Asp	aag Lys	gct Ala	ggg Gly 1015	gac Asp	atc Ile	agt Ser	tgt Cys	aat Asn 1020	gca Ala	gat Asp	atc Ile	aat Asn	3072
cca Pro 1025	ctg Leu	aaa Lys	ata Ile	gga Gly	caa Gln 1030	aca Thr	tct Ser	tct Ser	tct Ser	gta Val 1035	tct Ser	ttc Phe	aaa Lys	agt Ser	gaa Glu 1040	3120
aat Asn	ttc Phe	agg Arg	cac His	acc Thr 1045	aaa Lys	gaa Glu	ttg Leu	aac Asn	tgc Cys 1050	aga Arg	act Thr	gct Ala	tcc Ser	tgt Cys 1055	agt Ser	3168
aat Asn	gtt Val	acc Thr	tgc Cys 1060	tgg Trp	ttg Leu	aaa Lys	gac Asp	gtt Val 1065	cac His	atg Met	aaa Lys	gga Gly	gaa Glu 1070	tac Tyr	ttt Phe	3216
gtt Val	aat Asn	gtg Val	act Thr	acc Thr	aga Arg	att Ile	tgg Trp	aac Asn	ggg Gly	act Thr	ttc Phe	gca Ala	tca Ser	tca Ser	acg Thr	3264

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ttc cag aca gta cag cta acg gca gct gca gaa atc aac acc tat aac			3312
Phe Gln Thr Val Gln Leu Thr Ala Ala Ala Glu Ile Asn Thr Tyr Asn			
1090	1095	1100	
cct gag ata tat gtg att gaa gat aac act gtt acg att ccc ctg atg			3360
Pro Glu Ile Tyr Val Ile Glu Asp Asn Thr Val Thr Ile Pro Leu Met			
1105	1110	1115	1120
ata atg aaa cct gat gag aaa gcc gaa gta cca aca gat ccc gag			3405
Ile Met Lys Pro Asp Glu Lys Ala Glu Val Pro Thr Asp Pro Glu			
1125	1130	1135	
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gtcagggag agggctcttct ggctttttcc caggctctgg gcaggcacag gctaggtgcc			3585
cctaaccag gccctgcaca caaaggggca ggtgctgggc tcagacctgc caagagccat			3645
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cagctcggac accttctctc ctcccagatt ccagtaactc ccaatcttct ctctgca gag			3765
			Glu
ccc aaa tct tgt gac aaa act cac aca tgc cca ccg tgc cca			3807
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro			
1140	1145	1150	
ggtaagccag cccaggcctc gccctccagc tcaaggcggg acaggtgccc tagagtagcc			3867
tgcatccagg gacaggcccc agccgggtgc tgacacgtcc acctccatct ctctctca			3925
gca cct gaa ctc ctg ggg gga ccg tca gtc ttc ctc ttc ccc cca aaa			3973
Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys			
1155	1160	1165	
ccc aag gac acc ctc atg atc tcc cgg acc cct gag gtc aca tgc gtg			4021
Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val			
1170	1175	1180	
gtg gtg gac gtg agc cac gaa gac cct gag gtc aag ttc aac tgg tac			4069
Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr			
1185	1190	1195	
gtg gac ggc gtg gag gtg cat aat gcc aag aca aag ccg cgg gag gag			4117
Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu			
1200	1205	1210	
cag tac aac agc acg tac cgg gtg gtc agc gtc ctc acc gtc ctg cac			4165
Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His			
1215	1220	1225	1230
cag gac tgg ctg aat ggc aag gag tac aag tgc aag gtc tcc aac aaa			4213
Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys			
1235	1240	1245	
gcc ctc cca gcc ccc atc gag aaa acc atc tcc aaa gcc aaa			4255
Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys			
1250	1255	1260	
gggtgggaccc gtgggggtgcg agggccacat ggacagaggc cggctcggcc caccctctgc			4315
cctgagagtgc accgctgtac caacctctgt cctaca ggg cag ccc cga gaa cca			4369
	Gly	Gln	Pro
			Arg
			Glu
			Pro
			1265
cag gtg tac acc ctg ccc cca tcc cgg gat gag ctg acc aag aac cag			4417

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Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	
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gtc	agc	ctg	acc	tgc	ctg	gtc	aaa	ggc	ttc	tat	ccc	agc	gac	atc	gcc	4465
Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	
		1285					1290					1295				
gtg	gag	tgg	gag	agc	aat	ggg	cag	ccg	gag	aac	aac	tac	aag	acc	acg	4513
Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	
	1300					1305					1310					
cct	ccc	gtg	ctg	gat	tcc	gac	ggc	tcc	ttc	ttc	ctc	tac	agc	aag	ctc	4561
Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	
1315					1320				1325						1330	
acc	gtg	gac	aag	agc	agg	tgg	cag	cag	ggg	aac	gtc	ttc	tca	tgc	tcc	4609
Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	
				1335					1340					1345		
gtg	atg	cat	gag	gct	ctg	cac	aac	cac	tac	acg	cag	aag	agc	ctc	tcc	4657
Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	
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Leu	Ser	Pro	Gly	Lys	*											
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Leu	Tyr	Gln	Gly	Pro	His	Asn	Thr	Leu	Phe	Gly	Tyr	Ser	Val	Val	Leu
	50					55					60				
His	Ser	His	Gly	Ala	Asn	Arg	Trp	Leu	Leu	Val	Gly	Ala	Pro	Thr	Ala
	65				70					75					80
Asn	Trp	Leu	Ala	Asn	Ala	Ser	Val	Ile	Asn	Pro	Gly	Ala	Ile	Tyr	Arg
				85					90					95	
Cys	Arg	Ile	Gly	Lys	Asn	Pro	Gly	Gln	Thr	Cys	Glu	Gln	Leu	Gln	Leu
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Gly	Ser	Pro	Asn	Gly	Glu	Pro	Cys	Gly	Lys	Thr	Cys	Leu	Glu	Glu	Arg
		115					120					125			
Asp	Asn	Gln	Trp	Leu	Gly	Val	Thr	Leu	Ser	Arg	Gln	Pro	Gly	Glu	Asn
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Gly	Ser	Ile	Val	Thr	Cys	Gly	His	Arg	Trp	Lys	Asn	Ile	Phe	Tyr	Ile
	145				150					155					160
Lys	Asn	Glu	Asn	Lys	Leu	Pro	Thr	Gly	Gly	Cys	Tyr	Gly	Val	Pro	Pro
				165					170					175	
Asp	Leu	Arg	Thr	Glu	Leu	Ser	Lys	Arg	Ile	Ala	Pro	Cys	Tyr	Gln	Asp
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Tyr	Val	Lys	Lys	Phe	Gly	Glu	Asn	Phe	Ala	Ser	Cys	Gln	Ala	Gly	Ile
		195					200					205			
Ser	Ser	Phe	Tyr	Thr	Lys	Asp	Leu	Ile	Val	Met	Gly	Ala	Pro	Gly	Ser
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Ser	Tyr	Trp	Thr	Gly	Ser	Leu	Phe	Val	Tyr	Asn	Ile	Thr	Thr	Asn	Lys
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Tyr	Lys	Ala	Phe	Leu	Asp	Lys	Gln	Asn	Gln	Val	Lys	Phe	Gly	Ser	Tyr
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Leu	Gly	Tyr	Ser	Val	Gly	Ala	Gly	His	Phe	Arg	Ser	Gln	His	Thr	Thr
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Glu	Val	Val	Gly	Gly	Ala	Pro	Gln	His	Glu	Gln	Ile	Gly	Lys	Ala	Tyr
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Leu	Asn	Ala	Asp	Gly	Phe	Ser	Asp	Leu	Leu	Val	Gly	Ala	Pro	Met	Gln
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Ser	Thr	Ile	Arg	Glu	Glu	Gly	Arg	Val	Phe	Val	Tyr	Ile	Asn	Ser	Gly
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Ser	Gly	Ala	Val	Met	Asn	Ala	Met	Glu	Thr	Asn	Leu	Val	Gly	Ser	Asp
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Lys	Tyr	Ala	Ala	Arg	Phe	Gly	Glu	Ser	Ile	Val	Asn	Leu	Gly	Asp	Ile
	370					375					380				
Asp	Asn	Asp	Gly	Phe	Glu	Asp	Val	Ala	Ile	Gly	Ala	Pro	Gln	Glu	Asp
	385				390					395					400
Asp	Leu	Gln	Gly	Ala	Ile	Tyr	Ile	Tyr	Asn	Gly	Arg	Ala	Asp	Gly	Ile
				405					410					415	
Ser	Ser	Thr	Phe	Ser	Gln	Arg	Ile	Glu	Gly	Leu	Gln	Ile	Ser	Lys	Ser
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Leu	Ser	Met	Phe	Gly	Gln	Ser	Ile	Ser	Gly	Gln	Ile	Asp	Ala	Asp	Asn
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Asn	Gly	Tyr	Val	Asp	Val	Ala	Val	Gly	Ala	Phe	Arg	Ser	Asp	Ser	Ala
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Val	Leu	Leu	Arg	Thr	Arg	Pro	Val	Val	Ile	Val	Asp	Ala	Ser	Leu	Ser
	465				470					475					480
His	Pro	Glu	Ser	Val	Asn	Arg	Thr	Lys	Phe	Asp	Cys	Val	Glu	Asn	Gly
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Trp	Pro	Ser	Val	Cys	Ile	Asp	Leu	Thr	Leu	Cys	Phe	Ser	Tyr	Lys	Gly
			500					505					510		
Lys	Glu	Val	Pro	Gly	Tyr	Ile	Val	Leu	Phe	Tyr	Asn	Met	Ser	Leu	Asp
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Val	Asn	Arg	Lys	Ala	Glu	Ser	Pro	Pro	Arg	Phe	Tyr	Phe	Ser	Ser	Asn

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545	Ala	Asn	Cys	Arg	Thr	His	550	Gln	Ala	Phe	Met	Arg	555	Lys	Asp	Val	Arg	Asp
	Ile	Leu	Thr	Pro	Ile	Gln	565	Ile	Glu	Ala	Ala	Tyr	570	His	Leu	Gly	Pro	His
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	Leu	Gln	Gln	Lys	Lys	Glu	595	Lys	Asp	Ile	Met	Lys	600	Thr	Ile	Asn	Phe	
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	Val	Gly	Ser	Met	Lys	Thr	630	Leu	Met	Leu	Asn	Val	635	Ser	Leu	Phe	Asn	Ala
	Gly	Asp	Asp	Ala	Tyr	Glu	645	Thr	Thr	Leu	His	Val	650	Lys	Leu	Pro	Val	Gly
	Leu	Tyr	Phe	Ile	Lys	Ile	660	Leu	Glu	Leu	Glu	Glu	665	Lys	Gln	Ile	Asn	Cys
	Glu	Val	Thr	Asp	Asn	Ser	675	Gly	Val	Val	Gln	Leu	680	Asp	Cys	Ser	Ile	Gly
705	Tyr	Ile	Tyr	Val	Asp	His	695	Leu	Ser	Arg	Ile	Asp	700	Ile	Ser	Phe	Leu	Leu
	Asp	Val	Ser	Ser	Leu	Ser	710	Arg	Ala	Glu	Glu	Asp	715	Leu	Ser	Ile	Thr	Val
	His	Ala	Thr	Cys	Glu	Asn	725	Glu	Glu	Glu	Met	Asp	730	Asn	Leu	Lys	His	Ser
	Arg	Val	Thr	Val	Ala	Ile	740	Leu	Lys	Tyr	Glu	Val	745	Lys	Leu	Thr	Val	
	His	Gly	Phe	Val	Asn	Pro	755	Thr	Ser	Phe	Val	Tyr	760	Gly	Ser	Asn	Asp	Glu
785	Asn	Glu	Pro	Glu	Thr	Cys	775	Met	Val	Glu	Lys	Met	780	Asn	Leu	Thr	Phe	His
	Val	Ile	Asn	Thr	Gly	Asn	790	Ser	Met	Ala	Pro	Asn	795	Val	Ser	Val	Glu	Ile
	Met	Val	Pro	Asn	Ser	Phe	805	Thr	Thr	Gln	Thr	Asp	810	Lys	Leu	Phe	Asn	Ile
	Leu	Asp	Val	Gln	Thr	Thr	820	Gly	Glu	Cys	His	Phe	825	Gln	Thr	Leu	Lys	
	Arg	Val	Cys	Ala	Leu	Glu	835	Gln	Gln	Lys	Ser	Ala	840	Met	Gln	Thr	Leu	Lys
865	Gly	Ile	Val	Arg	Phe	Leu	850	Ser	Lys	Thr	Asp	Lys	855	Arg	Leu	Leu	Tyr	Cys
	Ile	Lys	Ala	Asp	Pro	His	865	Leu	Asn	Phe	Leu	Cys	870	Asn	Phe	Gly	Lys	
	Met	Glu	Ser	Gly	Lys	Glu	885	Ala	Ser	Val	His	Ile	890	Leu	Glu	Gly	Arg	
	Pro	Ser	Ile	Leu	Glu	Met	900	Glu	Thr	Ser	Ala	Leu	905	Lys	Phe	Glu	Ile	
	Arg	Ala	Thr	Gly	Phe	Pro	915	Glu	Pro	Asn	Pro	Arg	920	Val	Ile	Glu	Leu	Asn
945	Lys	Asp	Glu	Asn	Val	Ala	930	His	Val	Leu	Leu	Glu	935	Gly	Leu	His	His	Gln
	Arg	Pro	Lys	Arg	Tyr	Phe	940	Thr	Asp	Pro	Glu	Pro	945	Lys	Ser	Cys	Asp	
	Lys	Thr	His	Thr	Cys	Pro	950	Pro	Cys	Pro	Ala	Pro	955	Glu	Leu	Gly	Gly	
	Pro	Ser	Val	Phe	Leu	Phe	965	Pro	Pro	Lys	Pro	Lys	970	Asp	Thr	Leu	Met	Ile
	Ser	Arg	Thr	Pro	Glu	Val	980	Thr	Cys	Val	Val	Val	985	Val	Ser	His	Glu	
1025							990						1000					
							1005						1010					
							1015						1020					
							1030						1035					

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Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His
				1045					1050					1055	
Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg
			1060					1065					1070		
Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys
		1075					1080					1085			
Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu
	1090					1095					1100				
Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr
1105				1110					1115					1120	
Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val	Ser	Leu
				1125					1130					1135	
Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp
		1140						1145					1150		
Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val
	1155						1160				1165				
Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp
	1170					1175					1180				
Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His
1185				1190					1195					1200	
Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro
				1205					1210					1215	

Gly Lys

<210> 33
 <211> 963
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> fusion protein

<400> 33

Met	Asn	Leu	Gln	Pro	Ile	Phe	Trp	Ile	Gly	Leu	Ile	Ser	Ser	Val	Cys
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Cys	Val	Phe	Ala	Gln	Thr	Asp	Glu	Asn	Arg	Cys	Leu	Lys	Ala	Asn	Ala
			20					25					30		
Lys	Ser	Cys	Gly	Glu	Cys	Ile	Gln	Ala	Gly	Pro	Asn	Cys	Gly	Trp	Cys
		35					40					45			
Thr	Asn	Ser	Thr	Phe	Leu	Gln	Glu	Gly	Met	Pro	Thr	Ser	Ala	Arg	Cys
	50					55					60				
Asp	Asp	Leu	Glu	Ala	Leu	Lys	Lys	Lys	Gly	Cys	Pro	Pro	Asp	Asp	Ile
65					70					75				80	
Glu	Asn	Pro	Arg	Gly	Ser	Lys	Asp	Ile	Lys	Lys	Asn	Lys	Asn	Val	Thr
				85					90					95	
Asn	Arg	Ser	Lys	Gly	Thr	Ala	Glu	Lys	Leu	Lys	Pro	Glu	Asp	Ile	His
			100					105					110		
Gln	Ile	Gln	Pro	Gln	Gln	Leu	Val	Leu	Arg	Leu	Arg	Ser	Gly	Glu	Pro
		115					120					125			
Gln	Thr	Phe	Thr	Leu	Lys	Phe	Lys	Arg	Ala	Glu	Asp	Tyr	Pro	Ile	Asp
	130					135					140				
Leu	Tyr	Tyr	Leu	Met	Asp	Leu	Ser	Tyr	Ser	Met	Lys	Asp	Asp	Leu	Glu
145				150						155				160	
Asn	Val	Lys	Ser	Leu	Gly	Thr	Asp	Leu	Met	Asn	Glu	Met	Arg	Arg	Ile
				165					170					175	
Thr	Ser	Asp	Phe	Arg	Ile	Gly	Phe	Gly	Ser	Phe	Val	Glu	Lys	Thr	Val
			180					185					190		
Met	Pro	Tyr	Ile	Ser	Thr	Thr	Pro	Ala	Lys	Leu	Arg	Asn	Pro	Cys	Thr
		195					200					205			
Ser	Glu	Gln	Asn	Cys	Thr	Thr	Pro	Phe	Ser	Tyr	Lys	Asn	Val	Leu	Ser
	210					215					220				

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Leu Thr Asn Lys Gly Glu Val Phe Asn Glu Leu Val Gly Lys Gln Arg
 225 230 235 240
 Ile Ser Gly Asn Leu Asp Ser Pro Glu Gly Gly Phe Asp Ala Ile Met
 245 250 255
 Gln Val Ala Val Cys Gly Ser Leu Ile Gly Trp Arg Asn Val Thr Arg
 260 265 270
 Leu Leu Val Phe Ser Thr Asp Ala Gly Phe His Phe Ala Gly Asp Gly
 275 280 285
 Lys Leu Gly Gly Ile Val Leu Asn Asp Gly Gln Cys His Leu Glu
 290 295 300
 Asn Asn Met Tyr Thr Met Ser His Tyr Tyr Asp Tyr Pro Ser Ile Ala
 305 310 315 320
 His Leu Val Gln Lys Leu Ser Glu Asn Asn Ile Gln Thr Ile Phe Ala
 325 330 335
 Val Thr Glu Glu Phe Gln Pro Val Tyr Lys Glu Leu Lys Asn Leu Ile
 340 345 350
 Pro Lys Ser Ala Val Gly Thr Leu Ser Ala Asn Ser Ser Asn Val Ile
 355 360 365
 Gln Leu Ile Ile Asp Ala Tyr Asn Ser Leu Ser Ser Glu Val Ile Leu
 370 375 380
 Glu Asn Gly Lys Leu Ser Glu Gly Val Thr Ile Ser Tyr Lys Ser Tyr
 385 390 395 400
 Cys Lys Asn Gly Val Asn Gly Thr Gly Glu Asn Gly Arg Lys Cys Ser
 405 410 415
 Asn Ile Ser Ile Gly Asp Glu Val Gln Phe Glu Ile Ser Ile Thr Ser
 420 425 430
 Asn Lys Cys Pro Lys Lys Asp Ser Asp Ser Phe Lys Ile Arg Pro Leu
 435 440 445
 Gly Phe Thr Glu Glu Val Glu Val Ile Leu Gln Tyr Ile Cys Glu Cys
 450 455 460
 Glu Cys Gln Ser Glu Gly Ile Pro Glu Ser Pro Lys Cys His Glu Gly
 465 470 475 480
 Asn Gly Thr Phe Glu Cys Gly Ala Cys Arg Cys Asn Glu Gly Arg Val
 485 490 495
 Gly Arg His Cys Glu Cys Ser Thr Asp Glu Val Asn Ser Glu Asp Met
 500 505 510
 Asp Ala Tyr Cys Arg Lys Glu Asn Ser Ser Glu Ile Cys Ser Asn Asn
 515 520 525
 Gly Glu Cys Val Cys Gly Gln Cys Val Cys Arg Lys Arg Asp Asn Thr
 530 535 540
 Asn Glu Ile Tyr Ser Gly Lys Phe Cys Glu Cys Asp Asn Phe Asn Cys
 545 550 555 560
 Asp Arg Ser Asn Gly Leu Ile Cys Gly Gly Asn Gly Val Cys Lys Cys
 565 570 575
 Arg Val Cys Glu Cys Asn Pro Asn Tyr Thr Gly Ser Ala Cys Asp Cys
 580 585 590
 Ser Leu Asp Thr Ser Thr Cys Glu Ala Ser Asn Gly Gln Ile Cys Asn
 595 600 605
 Gly Arg Gly Ile Cys Glu Cys Gly Val Cys Lys Cys Thr Asp Pro Lys
 610 615 620
 Phe Gln Gly Gln Thr Cys Glu Met Cys Gln Thr Cys Leu Gly Val Cys
 625 630 635 640
 Ala Glu His Lys Glu Cys Val Gln Cys Arg Ala Phe Asn Lys Gly Glu
 645 650 655
 Lys Lys Asp Thr Cys Thr Gln Glu Cys Ser Tyr Phe Asn Ile Thr Lys
 660 665 670
 Val Glu Ser Arg Asp Lys Leu Pro Gln Pro Val Gln Pro Asp Pro Val
 675 680 685
 Ser His Cys Lys Glu Lys Asp Val Asp Asp Cys Trp Phe Tyr Phe Thr
 690 695 700
 Tyr Ser Val Asn Gly Asn Asn Glu Val Met Val His Val Val Glu Asn
 705 710 715 720
 Pro Glu Cys Pro Thr Gly Pro Glu Asp Pro Glu Glu Pro Lys Ser Cys

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      725      730      735
Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
      740      745      750
Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
      755      760      765
Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
      770      775      780
Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
      785      790      795
His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
      805      810      815
Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
      820      825      830
Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
      835      840      845
Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
      850      855      860
Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
      865      870      875
Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
      885      890      895
Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
      900      905      910
Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
      915      920      925
Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
      930      935      940
His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
      945      950      955
Pro Gly Lys

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<210> 34

<211> 1367

<212> PRT

<213> Artificial Sequence

<220>

<223> fusion protein

<400> 34

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Leu Ala Leu Ser Gln Gly Ile Leu Asn Cys Cys Leu Ala Tyr Asn Val
      20      25      30
Gly Leu Pro Glu Ala Lys Ile Phe Ser Gly Pro Ser Ser Glu Gln Phe
      35      40      45
Gly Tyr Ala Val Gln Gln Phe Ile Asn Pro Lys Gly Asn Trp Leu Leu
      50      55      60
Val Gly Ser Pro Trp Ser Gly Phe Pro Glu Asn Arg Met Gly Asp Val
      65      70      75      80
Tyr Lys Cys Pro Val Asp Leu Ser Thr Ala Thr Cys Glu Lys Leu Asn
      85      90      95
Leu Gln Thr Ser Thr Ser Ile Pro Asn Val Thr Glu Met Lys Thr Asn
      100      105      110
Met Ser Leu Gly Leu Ile Leu Thr Arg Asn Met Gly Thr Gly Gly Phe
      115      120      125
Leu Thr Cys Gly Pro Leu Trp Ala Gln Gln Cys Gly Asn Gln Tyr Tyr
      130      135      140
Thr Thr Gly Val Cys Ser Asp Ile Ser Pro Asp Phe Gln Leu Ser Ala
      145      150      155      160
Ser Phe Ser Pro Ala Thr Gln Pro Cys Pro Ser Leu Ile Asp Val Val

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val	val	cys	asp	165 glu	ser	asn	ser	ile	170 tyr	pro	trp	asp	175 ala	val	lys
asn	phe	leu	glu	180 lys	phe	val	gln	185 gly	leu	asp	ile	gly	190 pro	thr	lys
thr	gln	val	gly	195 leu	ile	gln	200 tyr	ala	asn	asn	pro	arg	val	val	phe
asn	leu	asn	thr	210 tyr	lys	thr	lys	glu	glu	met	ile	val	ala	thr	ser
225 gln	thr	ser	gln	230 tyr	gly	gly	asp	leu	thr	asn	thr	phe	gly	ala	ile
gln	tyr	ala	arg	245 lys	tyr	ala	tyr	ser	ala	ala	ser	gly	gly	arg	arg
ser	ala	thr	lys	260 val	met	val	val	val	thr	asp	gly	glu	ser	his	asp
gly	ser	met	leu	275 lys	ala	val	ile	asp	gln	cys	asn	his	asp	asn	ile
leu	arg	phe	gly	290 ile	ala	val	leu	gly	tyr	leu	asn	arg	asn	ala	leu
305 asp	thr	lys	asn	310 ile	lys	gln	ile	lys	ala	ile	ala	ser	ile	pro	
thr	glu	arg	tyr	325 phe	phe	asn	val	ser	asp	glu	ala	ala	leu	leu	glu
lys	ala	gly	thr	340 leu	gly	glu	gln	ile	phe	ser	ile	glu	gly	thr	val
gln	gly	gly	asp	355 asn	phe	gln	met	glu	met	ser	gln	val	gly	phe	ser
370 ala	asp	tyr	ser	380 ser	gln	asn	asp	ile	leu	met	leu	gly	ala	val	gly
385 ala	phe	gly	trp	390 ser	gly	thr	ile	val	gln	lys	thr	ser	his	gly	his
leu	ile	phe	pro	405 lys	gln	ala	phe	asp	410 gln	ile	leu	gln	asp	arg	asn
his	ser	ser	tyr	420 leu	gly	tyr	ser	val	ala	ala	ile	ser	thr	gly	glu
ser	thr	his	phe	435 val	ala	gly	ala	pro	arg	ala	asn	tyr	thr	gly	gln
ile	val	leu	tyr	450 ser	val	asn	glu	asn	gly	asn	ile	thr	val	ile	gln
465 ala	his	arg	gly	470 asp	gln	ile	gly	ser	tyr	phe	gly	ser	val	leu	cys
ser	val	asp	val	485 asp	lys	asp	thr	ile	thr	asp	val	leu	leu	val	gly
500 ala	pro	met	tyr	510 met	ser	asp	leu	lys	lys	glu	glu	gly	arg	val	tyr
leu	phe	thr	ile	515 lys	lys	gly	ile	leu	gly	gln	his	gln	phe	leu	glu
gly	pro	glu	gly	530 ile	glu	asn	thr	arg	phe	gly	ser	ala	ile	ala	ala
545 leu	ser	asp	ile	550 asn	met	asp	gly	phe	asn	asp	val	ile	val	gly	ser
pro	leu	glu	asn	565 gln	asn	ser	gly	ala	val	tyr	ile	tyr	asn	gly	his
gln	gly	thr	ile	580 arg	thr	lys	tyr	ser	gln	lys	ile	leu	gly	ser	asp
gly	ala	phe	arg	595 ser	his	leu	gln	tyr	phe	gly	arg	ser	leu	asp	gly
tyr	gly	asp	leu	610 asn	gly	asp	ser	ile	thr	asp	val	ser	ile	gly	ala
625 phe	gly	gln	val	630 val	gln	leu	trp	ser	gln	ser	ile	ala	asp	val	ala
ile	glu	ala	ser	645 phe	thr	pro	glu	lys	ile	thr	leu	val	asn	lys	asn
			660				665						670		

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Ala	Gln	Ile	Ile	Leu	Lys	Leu	Cys	Phe	Ser	Ala	Lys	Phe	Arg	Pro	Thr
		675					680					685			
Lys	Gln	Asn	Asn	Gln	Val	Ala	Ile	Val	Tyr	Asn	Ile	Thr	Leu	Asp	Ala
	690					695					700				
Asp	Gly	Phe	Ser	Ser	Arg	Val	Thr	Ser	Arg	Gly	Leu	Phe	Lys	Glu	Asn
705					710					715				720	
Asn	Glu	Arg	Cys	Leu	Gln	Lys	Asn	Met	Val	Val	Asn	Gln	Ala	Gln	Ser
				725					730					735	
Cys	Pro	Glu	His	Ile	Ile	Tyr	Ile	Gln	Glu	Pro	Ser	Asp	Val	Val	Asn
			740					745					750		
Ser	Leu	Asp	Leu	Arg	Val	Asp	Ile	Ser	Leu	Glu	Asn	Pro	Gly	Thr	Ser
		755					760					765			
Pro	Ala	Leu	Glu	Ala	Tyr	Ser	Glu	Thr	Ala	Lys	Val	Phe	Ser	Ile	Pro
	770					775					780				
Phe	His	Lys	Asp	Cys	Gly	Glu	Asp	Gly	Leu	Cys	Ile	Ser	Asp	Leu	Val
785					790					795					800
Leu	Asp	Val	Arg	Gln	Ile	Pro	Ala	Ala	Gln	Glu	Gln	Pro	Phe	Ile	Val
				805					810					815	
Ser	Asn	Gln	Asn	Lys	Arg	Leu	Thr	Phe	Ser	Val	Thr	Leu	Lys	Asn	Lys
			820					825					830		
Arg	Glu	Ser	Ala	Tyr	Asn	Thr	Gly	Ile	Val	Val	Asp	Phe	Ser	Glu	Asn
		835					840					845			
Leu	Phe	Phe	Ala	Ser	Phe	Ser	Leu	Pro	Val	Asp	Gly	Thr	Glu	Val	Thr
	850					855					860				
Cys	Gln	Val	Ala	Ala	Ser	Gln	Lys	Ser	Val	Ala	Cys	Asp	Val	Gly	Tyr
865					870					875					880
Pro	Ala	Leu	Lys	Arg	Glu	Gln	Gln	Val	Thr	Phe	Thr	Ile	Asn	Phe	Asp
				885					890					895	
Phe	Asn	Leu	Gln	Asn	Leu	Gln	Asn	Gln	Ala	Ser	Leu	Ser	Phe	Gln	Ala
			900					905					910		
Leu	Ser	Glu	Ser	Gln	Glu	Glu	Asn	Lys	Ala	Asp	Asn	Leu	Val	Asn	Leu
		915					920					925			
Lys	Ile	Pro	Leu	Leu	Tyr	Asp	Ala	Glu	Ile	His	Leu	Thr	Arg	Ser	Thr
	930					935					940				
Asn	Ile	Asn	Phe	Tyr	Glu	Ile	Ser	Ser	Asp	Gly	Asn	Val	Pro	Ser	Ile
945					950					955					960
Val	His	Ser	Phe	Glu	Asp	Val	Gly	Pro	Lys	Phe	Ile	Phe	Ser	Leu	Lys
				965					970					975	
Val	Thr	Thr	Gly	Ser	Val	Pro	Val	Ser	Met	Ala	Thr	Val	Ile	Ile	His
			980					985					990		
Ile	Pro	Gln	Tyr	Thr	Lys	Glu	Lys	Asn	Pro	Leu	Met	Tyr	Leu	Thr	Gly
		995					1000					1005			
Val	Gln	Thr	Asp	Lys	Ala	Gly	Asp	Ile	Ser	Cys	Asn	Ala	Asp	Ile	Asn
	1010					1015						1020			
Pro	Leu	Lys	Ile	Gly	Gln	Thr	Ser	Ser	Ser	Val	Ser	Phe	Lys	Ser	Glu
1025					1030					1035					1040
Asn	Phe	Arg	His	Thr	Lys	Glu	Leu	Asn	Cys	Arg	Thr	Ala	Ser	Cys	Ser
				1045					1050					1055	
Asn	Val	Thr	Cys	Trp	Leu	Lys	Asp	Val	His	Met	Lys	Gly	Glu	Tyr	Phe
			1060					1065					1070		
Val	Asn	Val	Thr	Thr	Arg	Ile	Trp	Asn	Gly	Thr	Phe	Ala	Ser	Ser	Thr
		1075					1080					1085			
Phe	Gln	Thr	Val	Gln	Leu	Thr	Ala	Ala	Ala	Glu	Ile	Asn	Thr	Tyr	Asn
	1090					1095					1100				
Pro	Glu	Ile	Tyr	Val	Ile	Glu	Asp	Asn	Thr	Val	Thr	Ile	Pro	Leu	Met
1105					1110					1115					1120
Ile	Met	Lys	Pro	Asp	Glu	Lys	Ala	Glu	Val	Pro	Thr	Asp	Pro	Glu	Glu
				1125					1130					1135	
Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro
			1140					1145					1150		
Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys
		1155					1160					1165			
Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val

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1170      1175      1180
Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
1185      1190      1195      1200
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
1205      1210      1215
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
1220      1225      1230
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
1235      1240      1245
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
1250      1255      1260
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
1265      1270      1275      1280
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
1285      1290      1295
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
1300      1305      1310
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
1315      1320      1325
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
1330      1335      1340
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
1345      1350      1355      1360
Leu Ser Leu Ser Pro Gly Lys
1365

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